

REMARKS

Claims 12-23 and 25-30 are pending in the application.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 12-23, 25-26, and 28-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ghercioiu et al. (US 2004/0010734) in view of Hasako et al. (US 2003/0093715), and further in view of Keele et al. (US 2005/0086695). This rejection is respectfully traversed.

A. Definition of Programmable Display Apparatus

In the pending claims, the term “display apparatus” has been amended to --programmable display apparatus-- to further clarify the claimed invention of the present application.

The definition of the “programmable display apparatus” is described in the attached “Programmable Display Apparatus” (http://www.jpo.go.jp/shiryos/s_sonota/map/denki18/4/4-1.htm), which is a literature provided by the Japanese Patent Office. A copy and an English translation of the literature are attached herewith (Appendices A and B).

In the literature, a “programmable display apparatus” is defined as “an electronic manipulation display apparatus including a dot display screen, an operation switch, an interface with a host controller, and a program memory for controlling a screen, an instruction input or the like, where a user can provide, as an application program, a display screen, an instruction input, a communication function with the host controller, and can perform setting in accordance with an object and make the apparatus operate accordingly.”

Since the “programmable display apparatus” simply displays switches and/or numeral keyboard as an image, it is possible to make the apparatus compact by displaying only a

necessary image in accordance with an operation procedure, and also possible to reduce an erroneous operation such as pressing a wrong switch.

The present invention relates to a “display apparatus having a function of displaying a state of control target equipment. More particularly, the present invention relates to a display apparatus having a function of storing a signal indicative of a state of control target equipment electrically connected thereto and a video signal of the equipment in association with each other and a function of reproducing moving images corresponding to the state based on a reproduction instruction, a program product for causing a computer to function as the display apparatus, and a recording medium storing the program product” (see page 1, lines 7-14 of the specification of the present application).

An object of the present invention is to provide a display apparatus capable of giving notification of a change in state of a device in real time and also supporting measures including analysis of the cause of the change (see page 3, lines 15-18 of the specification).

According to one embodiment of the present invention, programmable display apparatus 100 sends a command to a control target device. The control target device performs a specific operation based on the command.

B. Ghercioiu Reference

In contrast, the Ghercioiu reference discloses a “system and a method for deploying and executing a program, e.g., a graphical program, on an embedded device. The program and a plurality of execution system components are stored on a host computer. The program is analyzed programmatically to determine a subset of the plurality of components required for execution of the program. The subset of components and the program are combined into a file while preserving execution order of the program. The file is transmitted to the device. The file is

used to construct a combined program which includes executable code for the program and the subset of components. The device includes a minimal execution engine which executes the subset of components to execute the program. The file may be streamed to the device for streaming execution, where received portions of the subset of components needed for execution of received portions of the program are stored until no longer needed” (see Abstract of the reference).

C. Differences in Configuration

Applicants submit that the claimed “programmable display apparatus” of the present invention is completely different from the “computer system 102” of the Ghercioiu reference, as can be understood from the above-described disclosure (Please also refer to Appendix C)

With reference to Fig. 2 of the Ghercioiu reference and Fig. 1 of the present application, the configurations of the reference and the claimed invention are compared as follows.

a. Difference 1

According to the Ghercioiu reference, it is a precondition that the computer system 102 stores a program such as a graphical program and a plurality of execution system components. A subset of components are determined and combined into a file. The file is transmitted to an embedded device and executed by the device.

In contrast, in the claimed invention of the present application, it is a precondition that the claimed programmable display apparatus (programmable display apparatus 100) communicate with the control target equipment (target system 186) and the image pick-up means (camera 184) by transmitting a command and receiving data which indicates a state of the

control target equipment. Applicants note that the programmable display apparatus does not transmit a program both to the camera 184 and the target system 186.

b. Difference 2

There exists a difference between the Ghercioiu reference and the claimed invention in terms of the graphical program development environment. Namely, according to the Ghercioiu reference, it is necessary to have graphical program development environment 201. In contrast, according to an aspect of the claimed invention, the programmable display apparatus 100 does not have the graphical program development environment 201.

c. Difference 3

Further, Applicants note that, according to an aspect of the claimed invention of the present application, the target system 186 does not receive a program to be executed by the system and consequently, no program which is transmitted by the programmable display apparatus is installed in the target system 186 such as the minimal graphical program execution system 205 and the real-time OS 210.

D. Patentability of the Pending Claims

As seen from the Office Action, the Examiner simply refers to paragraphs of the cited references. Applicants respectfully submit, however, that at least the following elements/features are not disclosed or suggested by the Ghercioiu reference (Please also refer to Appendix D).

With reference to Fig. 3 of the Ghercioiu reference, the difference of the configuration between the cited reference and the claimed invention is explained.

In the Final Office Action, the claimed "storage means for storing a control program having a plurality of instructions and symbol data for displaying a plurality symbols related to

each of said plurality of instructions” is compared to paragraph [0233] of the Ghercioiu reference. This paragraph, however, does not disclose the technical feature corresponding to the claimed “storage means.” It is apparent that paragraph [0233] does not disclose the claimed “symbol data for displaying a plurality of symbols related to each of said plurality of instructions,” as recited in claim 12.

“Video Signal Input Means” and “Video Data Storing Means”

As to the claimed “video signal input means for receiving an input of video data generated based on a picked-up image of said control target equipment for each of the instructions,” and the “video data storing means,” the Examiner asserts that these features are disclosed in paragraph [0080] of the Ghercioiu reference (see page 3 of the Office Action).

However, the Ghercioiu reference does not disclose or suggest the foregoing claimed features of the present invention. More specifically, Ghercioiu merely states, in paragraph [0080]:

As FIG. 3 shows, the memory medium 166 may be coupled to the host bus 162 by means of memory controller 164. The host bus 162 may be coupled to an expansion or input/output bus 170 by means of a bus controller 168 or bus bridge logic. The expansion bus 170 may be the PCI (Peripheral Component Interconnect) expansion bus, although other bus types can be used. The expansion bus 170 includes slots for various devices, such as a network interface card 114, a video display subsystem 180, and hard drive 1102 coupled to the expansion bus 170.

Although the video display subsystem 180 is mentioned in paragraph [0080], it is clear that the claimed “video signal input means” and the “video data storing means” are neither disclosed nor suggested. Nonetheless, if the Examiner maintains that the claimed features are

disclosed in the Ghercioiu reference, the Examiner is respectfully requested to specify a passage or a term in the paragraph instead of paragraph numbers.

E. Other References

The Hasako reference has been relied upon to show that the “relation means” and the “second display control means” are known in the art.

Further, the Keele reference has been relied upon to show that the “control means” that displays the moving image of at least one of a time period from a predetermined time previous to the detection and a time period to a predetermined time after the detection is known in the art.

In view of this, Applicants submit that even assuming that Ghercioiu, Hasako, and Keele can be combined, which Applicants do not admit, the cited references, taken singly or in combination, fail to disclose or suggest the “storage means,” the “video signal input means,” and the “video data storage means,” as recited in claim 12.

Claims 13-22, 25, and 26, variously dependent on claim 12, are allowable at least for their dependency on claim 12.

Claim 23 is allowable at least for the similar reasons as stated in the foregoing with regard to claim 12.

Claims 28 and 29, variously dependent on claim 23, are allowable at least for their dependency on claim 23.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 27 and 30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ghercioiu in view of Hasako and Keele, and further in view of Applicants’ Admitted Prior Art.

Claim 27, indirectly dependent on claim 12, is allowable at least for its dependency on claim 12.

Claim 30, indirectly dependent on claim 23, is allowable at least for its dependency on claim 23.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of the pending claims in the present application are respectfully requested.

The Examiner is respectfully requested to enter this Amendment After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Amendment After Final in that it places the application in better form for Appeal.

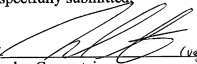
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi, Registration No. 40417 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: August 27, 2010

Respectfully submitted,



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Attachments: Appendices A-D